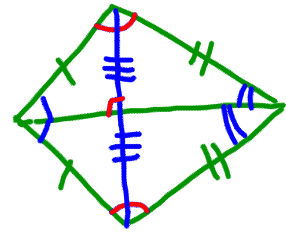
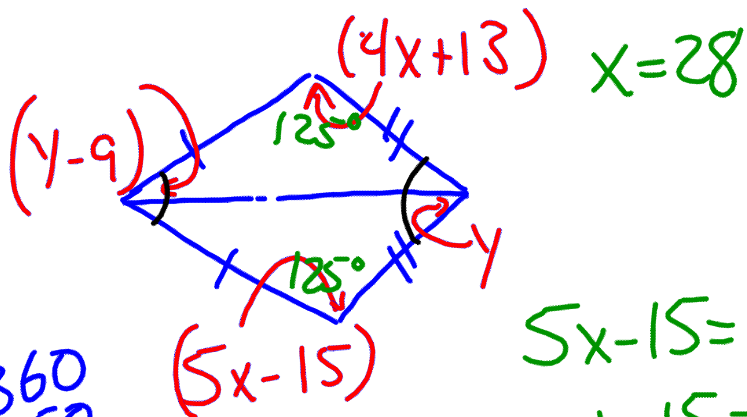


03/03/14 Agenda:

- Answer Keys
- Update Properties Book
 - What's on each page
 - Properties of a Kite
- Review Homework
 - Worksheet 9 - Kites
- Section 8.5 day 2 - Properties of Trapezoids
- Update Properties Book
 - Properties of Trapezoids
- Homework
 - Worksheet 10 - Trapezoids



$$\begin{array}{r} 360 \\ -250 \\ \hline 110 \end{array}$$

$$5x-15=4x+13$$

$$x-15=13$$

$$x=28$$

$$2(y-9)+2y=110$$

$$2y-18+2y=110$$

$$4y-18=110$$

$$4y=128$$

$$y=32$$

Section 8.4 day 2 - Properties of Trapezoids

Target 8E

March 3, 2014

Quadrilateral



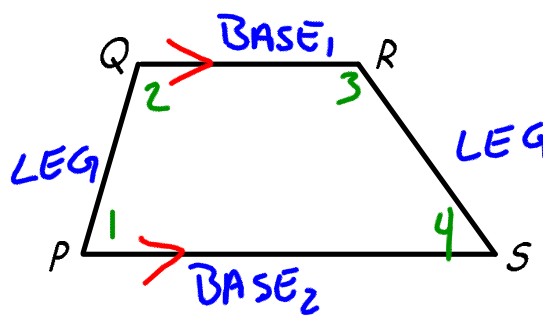
Trapezoid

Properties of Trapezoids:

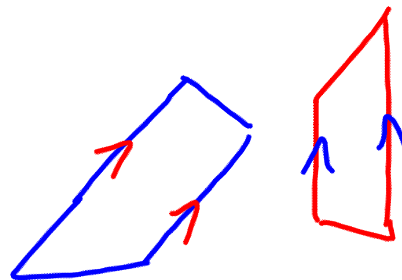
- 1.) 1 pair of opposite sides parallel
- 2.) 2 bases and 2 legs
- 3.) Consecutive angles between bases supplementary

BASE ANGLES -
THE PAIR OF
ANGLES ON
1 BASE

$\angle 1$ AND $\angle 4$
 $\angle 2$ AND $\angle 3$



$\angle 1 + \angle 2 = 180$
 $\angle 3 + \angle 4 = 180$



Section 8.4 day 2 - Properties of Trapezoids

Target 8E

March 3, 2014

Quadrilateral

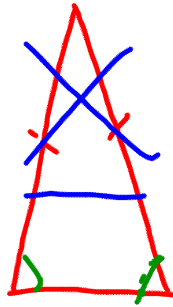


Trapezoid



Isosceles
Trapezoid

What does Isosceles mean??

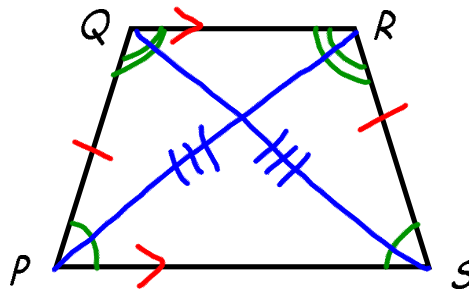
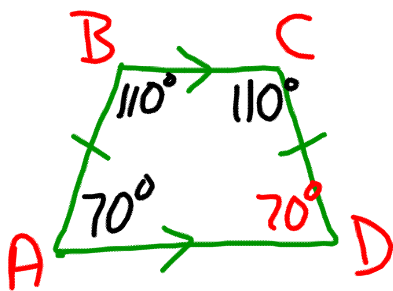


2 SIDES \cong

Properties of Isosceles Trapezoids:

All the properties of a trapezoid **plus...**

- 1.) The legs are congruent.
- 2.) The base angles are congruent.
- 3.) The diagonals are congruent



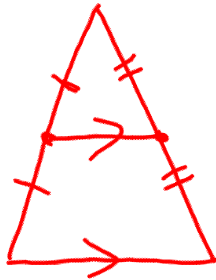
Section 8.4 day 2 - Properties of Trapezoids

Target 8E

March 3, 2014

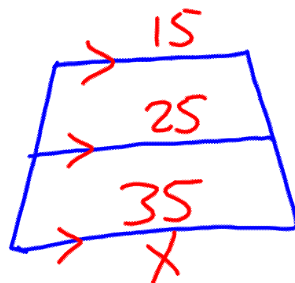
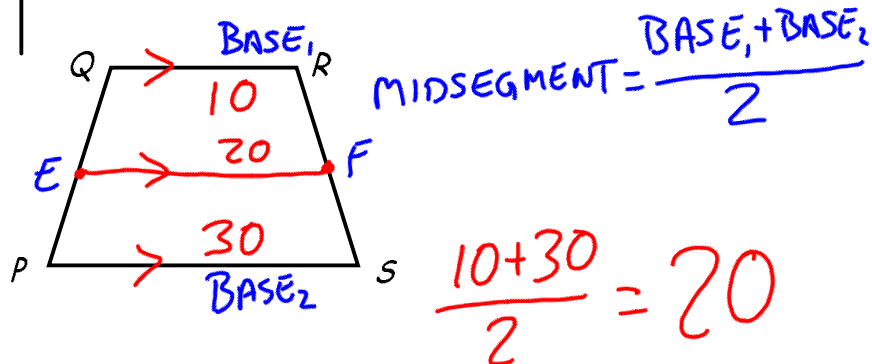
Midsegment

What does Midsegment mean??



Midsegments of Trapezoids:

- The midsegment of a trapezoid connects the midpoints of the legs.
- 1.) The midsegment is parallel to the bases.
- 2.) The length of the midsegment is the average length of the bases.



$$\frac{B_1 + B_2}{2} = \text{MID S.}$$

$$2 \cdot \left(\frac{15 + x}{2} \right) = (25) \cdot 2$$

$$15 + x = 50$$

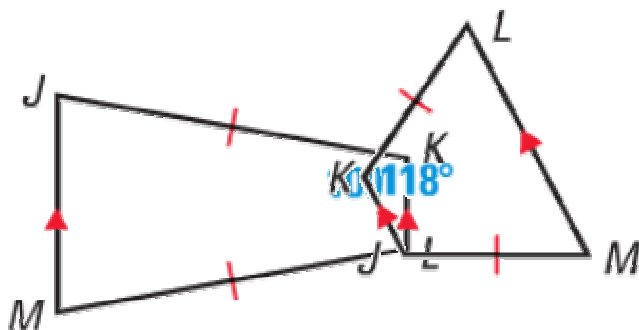
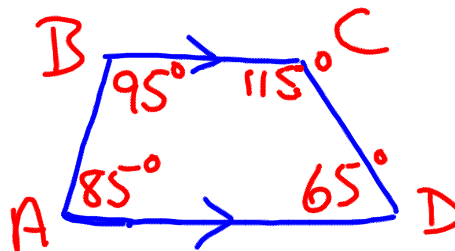
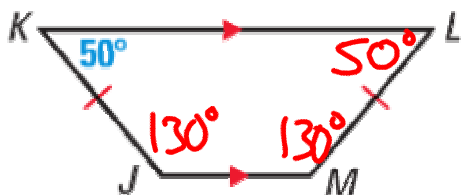
$$x = 35$$

Section 8.4 day 2 - Properties of Trapezoids

Target 8E

March 3, 2014

FINDING ANGLE MEASURES Find $m\angle J$, $m\angle L$, and $m\angle M$.

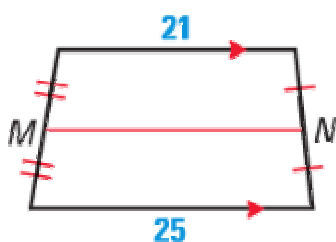


Section 8.4 day 2 - Properties of Trapezoids

Target 8E

March 3, 2014

FINDING MIDSEGMENTS Find the length of the midsegment of the trapezoid.

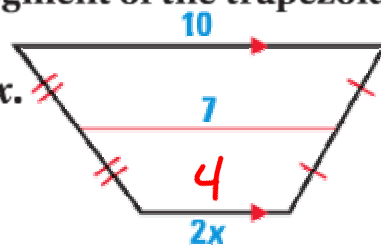


$$MN = 23$$

$$\frac{21 + 25}{2}$$

$$\frac{46}{2} = 23$$

Find the value of x .



$$\frac{10 + 2x}{2} = 7$$

$$10 + 2x = 14$$

$$2x = 4$$

$$x = 2$$

